Control Systems

Building Management System

Midea Router

Midea Remote Service Centre

User's Monitoring System

Connectable to various sized BMS/BAS

MD-CCM07

MD-CCM08

Centralized Control

Network Monitoring Controller

485A-I

Weekly Schedule Centralized Controller

MD-CCM09

Indoor Centralized Controller

MD-CCM03

Outdoor Centralized Controller

MD-CCM02

Web Monitoring Tool

MD-CCM08

Individual control

Wire controller

KJR-10B

KJR-12B

KJR-90A

Remote controller

RM02

RM05

R05

R06

R51

R71

Accessories

Card-key Interface

MD-NIM05

Card-key

Infared Sensor

MD-NIM09

INFARED SENSOR

MD-NIM01

Combined ON/OFF*

Outdoor units

Note: The wires in the diagram show the signal flows only, while not represent the actual connecting ways.
*Combined ON/OFF function can be customized from us.

Comparison of Controllers

Item		Remote	Wired Controller	Centralized Controller	3rd-generation Monitoring System
Model name		RM05 R06 R05 R51	KJR-10B KJR-12B KJR-90A	MD-CCM03 MD-CCM09 KJR-90B KJRF-180A	MDV-WLJKXT
MAX. controllable IDU		1	1	16/64	1024
AC control function	On/Off	●	●	●	●
	Operation mode setting	●	○	○	●
	Heating mode	○	○	●	●
	Fan speed setting	●	●	○	●
	Room temp. setting	●	●	○	●
	Vertical swing	●	●	○	●
	Horizontal swing	○	○	—	—
	Economic mode	○	○	—	—
	Group setting	—	—	●	●
	Key lock	○	○	○	—
Display	Backlight	○	○	●	—
	Current time	○	—	○	—
	RC prohibition	—	—	○	●
	Address	—	—	●	●
	Error code	—	—	○	●
Timer	Period	—	—	—/Week	—
	On/Off per day	—	—	—/4	—
	On/Off per week	—	—	—/28	—
	On/Off timer	●	●	○	●
Control	FOLLOW ME	○	○	—	—
	Emergent stop	—	—	○	—
	Emergent start	—	—	○	—
	Address setting	○	—	—	—
	BMS access	—	—	○	●
	Control via internet	—	—	○	●

● : Each of this kind of controller has the corresponding functions.
○ : This function is optional.
— : This function is not available through the corresponding controller.

Wireless Remote Controller

RM02 RM05 R05 R06 R51 R71

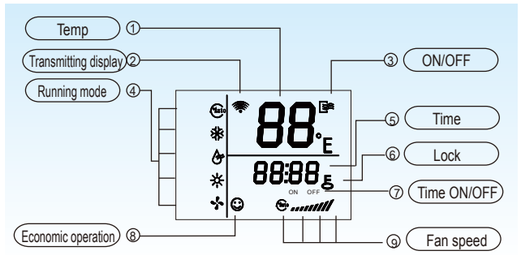
Functions

Portable device

Wireless remote controller is a portable control device. It provides a convenient way for users to control the AC everywhere within a range up to 11m.

Explicit user interface

Users can synchronize the air conditioners' parameters with the display panel of the wireless remote controller. It's the very way to make the room environment precisely work at the user's will.

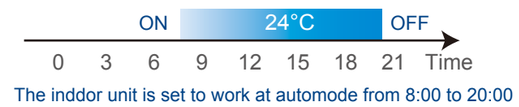


Background light

Background light allows user operate the device in the dark room freely. The device lights whenever the keys are pressed and last during the whole operating procedure.

Built-in timer

Built-in daily timer offers the convenience of automatically starting and turning down the air conditioners according to the set time.



The inddor unit is set to work at automode from 8:00 to 20:00

Addressing setting

Besides the machine's auto assigning addresses function, users can set the indoor unit's address via the wireless remote controller.

Specifications

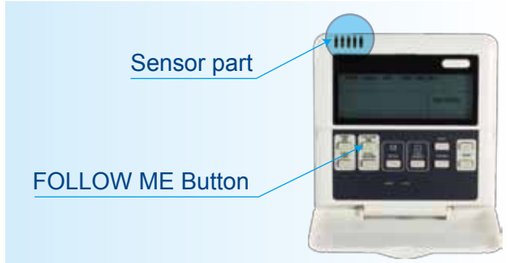
Model	RM02	RM05	R05	R06	R51	R71
Dimensions	150×60×15	150×65×20	150×65×20	100×55×20	140×60×15	125×42×27
Power	1.5V(LR03/AAA)×2					

Wired Controller

KJR-10B KJR-12B KJR-90A

Functions

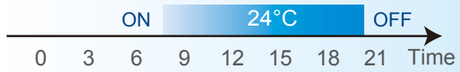
Follow me



With the FOLLOW ME function, the wired controller can detect the air temperature at the user's altitude instead that of the ceiling or the floor. This helps making the room environment comfortable and the temperature accurate.

Built-in timer

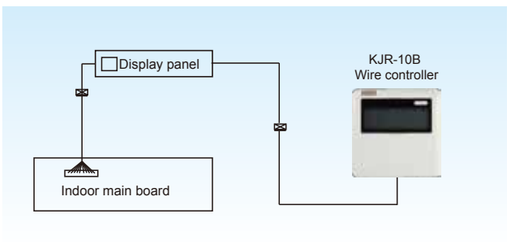
Built-in daily timer offers the convenience of automatically starting and turning down the air conditioners according to the set time.



The inddor unit is set to work at automode from 8:00 to 20:00

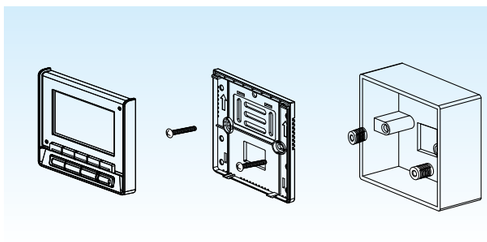
Easy connection

Wired controller conveniently connects to the indoor unit's display panel with the appropriative connecting wire.



Easy installation

The wired controller allows to be installed into the wall by fixing the bottom directly or fixing the device to a mounting cabinet.



Specifications

Model	10B	12B	90A
Dimensions	120×120×15	120×120×15	90×86×13
Power	Power from the display panel. Extra power is unnecessary.		

Centralized Controller

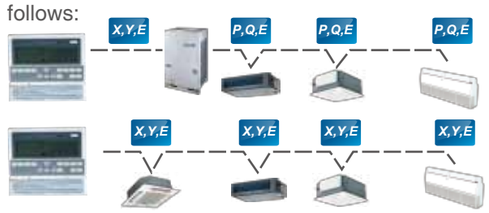
INDOOR CENTRALIZED CONTROLLER

MD-CCM03

Functions

Centralized control

MD-CCM03 is a multifunctional device which is able to control up to 64 indoor units. And the connection length can be up to 1,200m. With the newly designed machines, this device connects to the master outdoor unit, making the centralized wiring quite simple.The 2 ways of connecting is as follows:

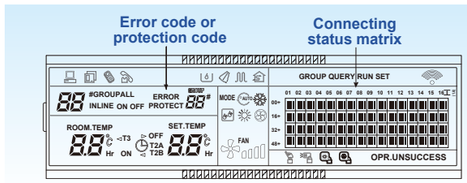


Three lock modes

Centralized controller MD-CCM03 provides a superior way to manage the indoor units. Users are able to make their own choice from locking the wireless controller, locking the running mode or lock the MD-CCM03's keyboard, as they wish.

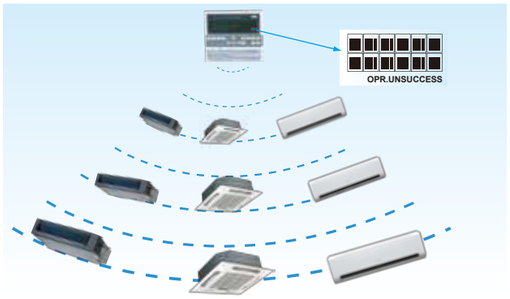
Indoor unit working status display

MD-CCM03 displays both the indoor units working status and the error codes. Via checking the error codes table in the user manual, users can easily find out the malfunction and call the repairman.



Single/unified control mode

The control object can be either single or all, making the controlling operation convenient and easy. With the operation signal feedback, users ensure their machines work at the precise working mode.



Access to network monitoring

MD-CCM03 is able to bridge up to 64 indoor units to the network monitoring system and the building management system.

Specifications

Model	MD-CCM03
Dimensions(H×W×D)(mm)	170×110×70
Power	198-242V(50/60Hz)

Centralized Controller

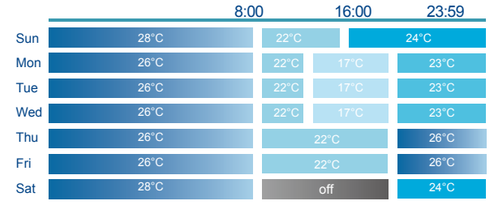
WEEKLY SCHEDULE CENTRALIZED CONTROLLER

MD-CCM09

Functions

Weekly schedule

MD-CCM09 allows up to 64 indoor units making the weekly schedule. Users can set up to 4 periods per day and select the desired running mode and room temperature. The operating object could be any indoor unit or all the indoor units.



Three lock modes

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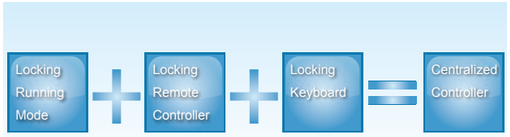

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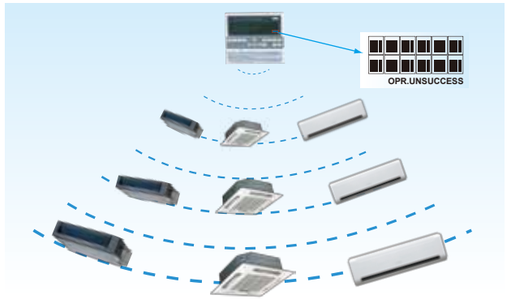

Indoor unit working status display

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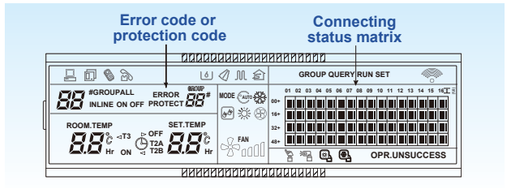


Specifications

Model	MD-NIM09
Dimensions(H×W×D)(mm)	170×110×70
Power	198-242V(50/60Hz)

Centralized Controller

WIRED CONTROLLER

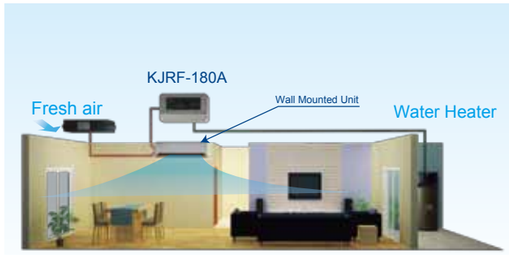
KJRF-180A

Newly designed centralized controller controls up to 16 indoor units and 1 heat pump water heater in addition.

Functions

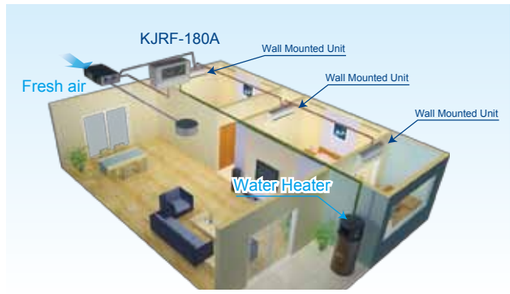
Multiple machine control

KJRF-180A is a multiple functions device, which can control both indoor air conditioners and heat pump water heater. Moreover, KJRF-180A is able to connect to the fresh air unit and realize the operation.



Single/unified control

KJRF-180A provides an easy way to control the indoor unit and water heater. User can quickly choose the water heater or the fresh air unit to adjust their running modes.

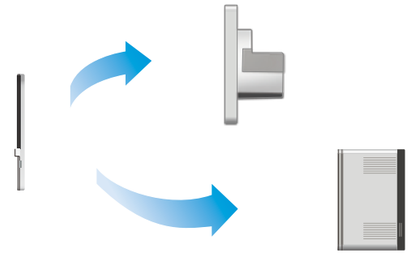


Graceful design

KJRF-180A is designed with graceful appearance, especially suitable for the high class environment. The key lock function helps avoiding unnecessary operation by mistake.

Easy installation

KJRF-180A offers two different appearances to mostly suit the installation. Both of them are easy to operate.



Specifications

Model	KJRF-180A
Dimensions(H×W×D)(mm)	180×122×69
Power	220V(50/60Hz)

Centralized Controller

UNIFIED ON/OFF CONTROLLER

KJR-90B

Unified controller designed with graceful appearance and explicit panel.

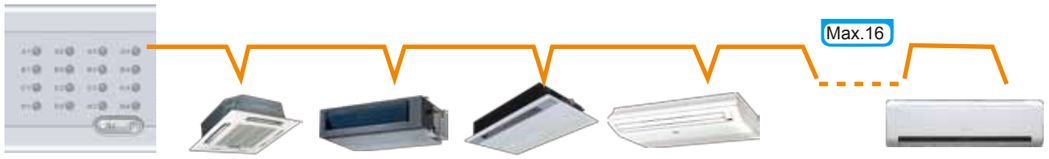
Functions

Unified control

KJR-90B only offers the on/off and heating/cooling choice for the indoor unit. And the running temperature is set to be comfortable previously. By this way, the indoor environment is quite convenient to manage.

Centralized control

KJR-90B centralized control up to 16 indoor units.



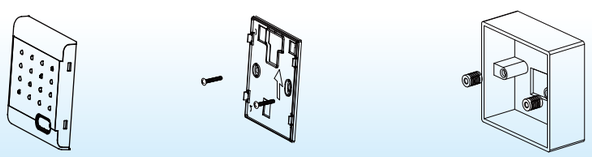
Light indicator

The lights of the KJR-90B indicate the indoor unit's running mode. This helps discovering the abnormal indoor unit. After the operations, the lights will fade to save energy and avoid disturbance. The indications are as follows:

Light	Blue	Red	Flash
Single On/Off key	Cooling/Fan	Heating	IDU Error
Unified On/Off key			EEPROM Error

Easy installation

KJR-90B can be easily mounted on the built-in cabinet:



Specifications

Model	KJR-90B
Dimensions(H×W×D)(mm)	90×86×8
Power	Powered from display panel. Extra power unnecessary.

Central Control Software

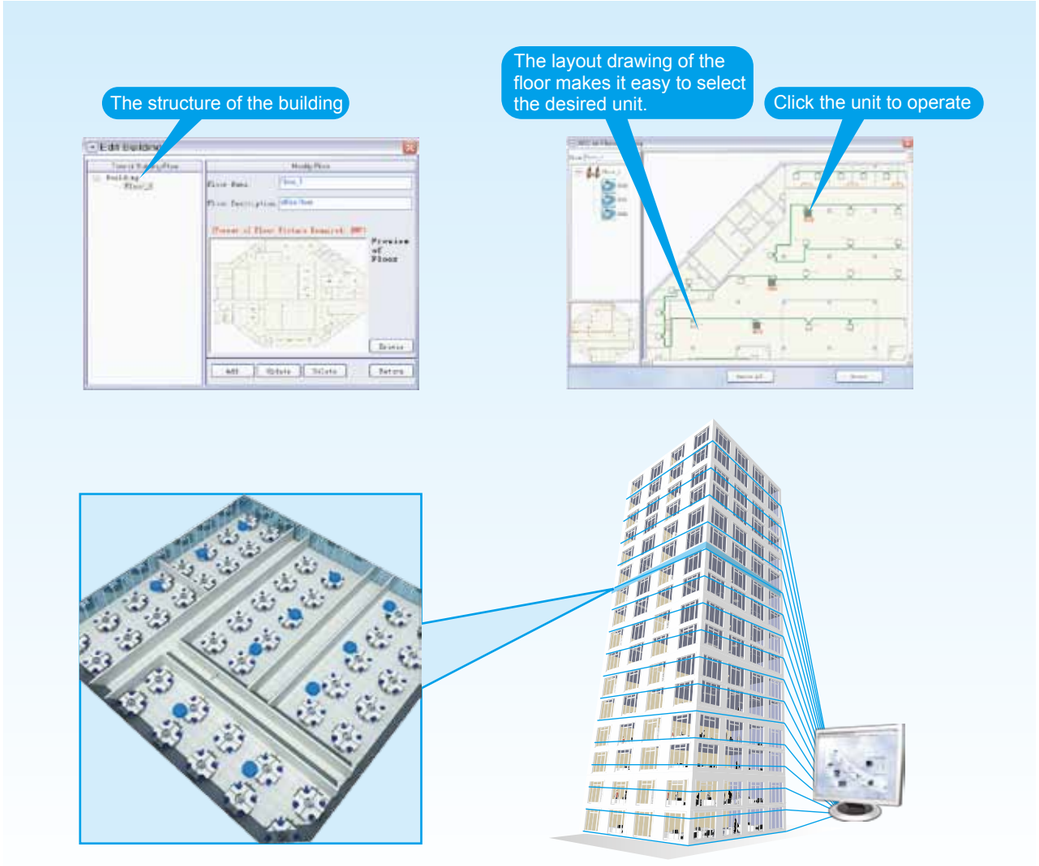
3RD GENERATION MONITORING SYSTEM

Functions

Friendly user interface

3rd generation monitoring system offers a simple and explicit user interface to allow realize its functions simply.3rd generations monitoring system is able to control up 1024 indoor units and 512 outdoor units.

Group definition 3rd


The structure of the building
The layout drawing of the floor makes it easy to select the desired unit.
Click the unit to operate

Multiple functions

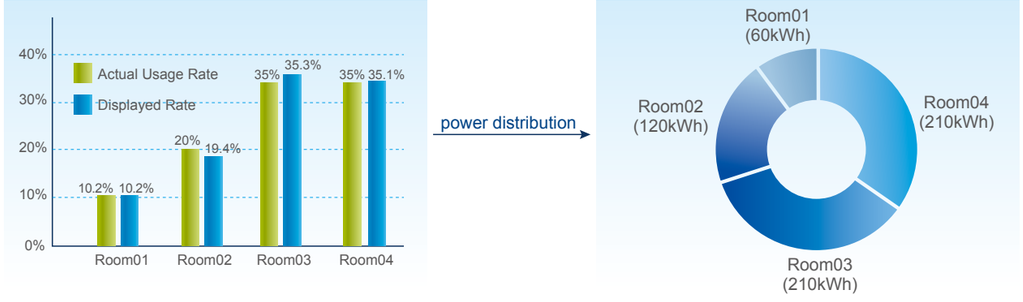
3rd generation system is able to realize the remote control of indoor units. The command of indoor unit can be both the normal ones, such as changing the running modes, adjusting the temp., timer functions, and the higher class command, such as excluding the other controllers to realize unique PC control.

Running parameter display

3rd generation system can synchronize both the indoor and outdoor units' running status and parameters, to realize the visual control of the refrigerant system. Moreover, the 3rd generation system records the running status and error information of the refrigerant system, which helps the maintenance accurate and easy.

Electricity charge apportionment

With the appropriate devices, 3rd generation system can record the total electricity consumption and the on/off time of the outdoor units. And with the indoor units' actual cooling power, the software intelligently distributes the power consumption to each indoor unit. Moreover, the software can generate the electricity charge bills and the bill of the indoor units' on/off time, which is a basis of the power consumption.



The principle of the electricity distribution

Room 01 electric power consumption
Demand capacity of Room01
Total demand capacity of indoor units
Total power consumption

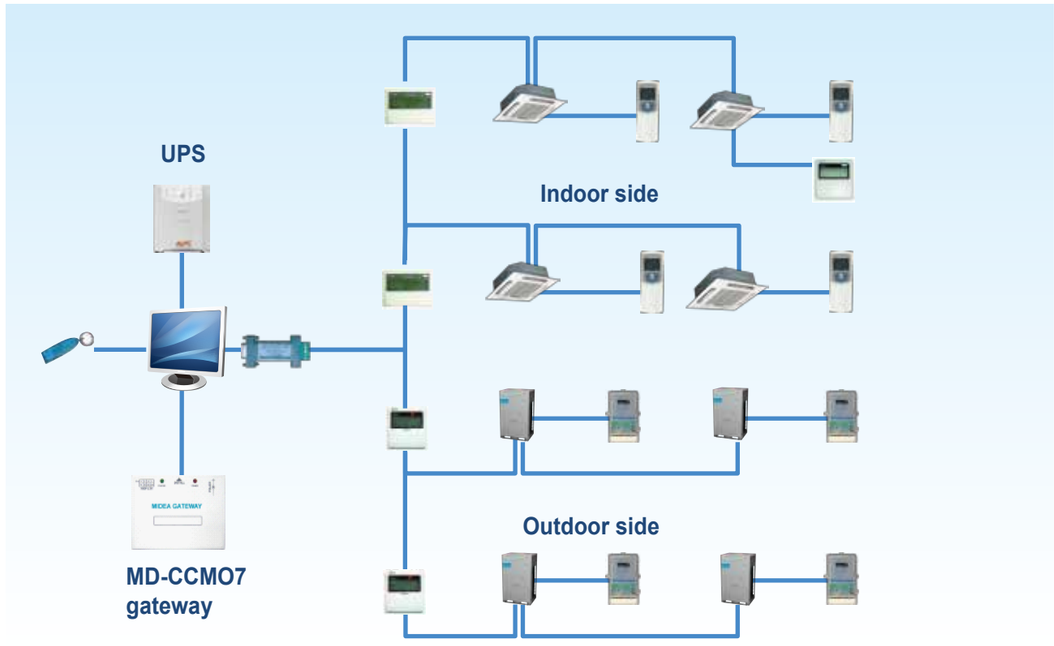
Accessories

LONWORKS® BMS GATEWAY

MD-CCM07

Cooperate with the 3rd generation monitoring software.
Enables centralized control of up to 1024 indoor units and 512 outdoor units to the LonWorks BMS.
Easily connects to the BMS system.
Ideal for scattered units of large projects, such as high office buildings, etc.

Network example



UPS is recommended only, not necessary.

Recommended config

Operating system	WIN2000/WIN XP SP4
CPU	Pentium 4 2G or above
HDD	40G free space
Interface port	2 RS-232 terminals and 3 USB ports
Software	3rd generation monitoring software kit
Database	Microsoft SQL Sever 2000 personal edition
Electricity meter	Chint DTS634 or corresponding model

Packing list

Packing list	MD-CCM07 and power converter

PC should be field supplied.
3-core shield twisted pair lines should be applied to the network.

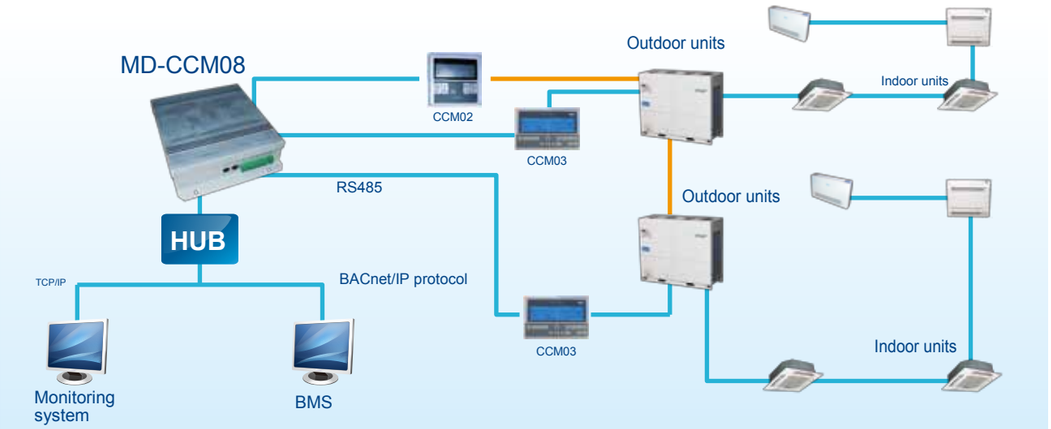
Accessories

BACNET® BMS GATEWAY

MD-CCM08

Contains 4 groups of RS-485 communication ports and be able to connect up to 256 indoor units or 128 outdoor units to the BMS.
Be free to connect to the BMS or not.
Be compatible with 3rd generation monitoring software Firebird.
Monitor machines via local network.

Network example



Monitoring units via local web

MD-CCM08 allows users explore the units via local network, simply using the Internet Explorer. Moreover, users can not only check the units running conditions, but also change the running parameter of the units, which is quite convenient for users to control.

Wide compatibility

■ CCM08 has a wonderful adaptability to the BMS.

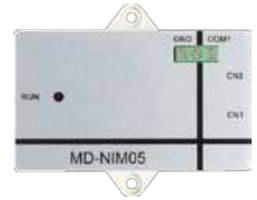
	Company	BMS software	Brand
1	SIMENS	APOGEE	
2	TRANE	Tracer Summit	
3	Honeywell	Alerton	
4	Schneider	Andover	
5	Johnson	METASYS	

Accessories

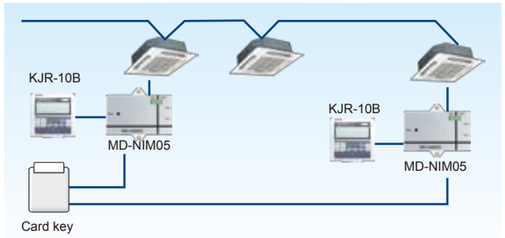
HOTEL CARD KEY INTERFACE MODULE

MD-NIM05

Cooperate with the wired controller to realized humanistic automatic control.
High voltage power is unnecessary, making the device safe and steady.
Auto-restart function inside.

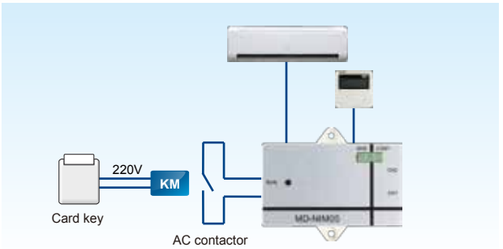


Installation example



Wired controller is necessary in this card-key system.

Electrical wiring



■ Specifications

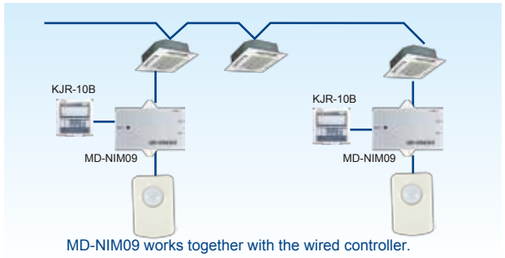
Model	MD-NIM05
Dimensions(H×W×D)(mm)	86×72.8×15.5
Power	Powered from display panel. Extra power unnecessary.

INFRARED SENSOR CONTROLLER

MD-NIM09

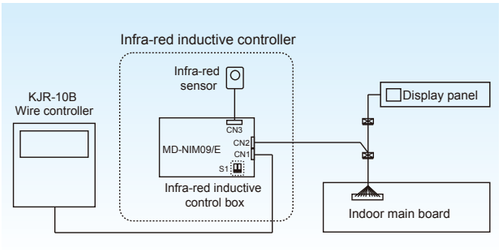
Automatically adjust the room environment.
Automatically extend the shutting down time, avoiding frequent ON/OFF.
Graceful appearance accommodates itself to the different buildings.

Installation example



MD-NIM09 works together with the wired controller.

Electrical wiring



■ Specifications

Model	MD-NIM09
Dimensions(H×W×D)(mm)	Senor part: 46×30×25.6, Control box: 86×72.8×15.5
Power	Powered from display panel. Extra power unnecessary.

Accessories

3-PHASE PROTECTOR

GMR-32B

Detect the power condition and make the corresponding protecting action.
Protect the compressor from being damaged.
Automatically distinguish the power supply's abnormal type and automatically recover.

Excellent reliability

The protector protects the entire system from power supply problems, Moreover, the protector can automatically recover from switching off status.

Multiple protections

■ GMR-32B protects the entire system from many kinds of power supply problems.

Protection	Type	Action Time	Action condition
Phase reverse		0.5S	
Dynamic/static phase loss		1S	
Over/under voltage	-	7S	Operating voltage is over setting voltage
	T	30S	
Phase imbalance		5S	Voltage deviation is over 10%
Fail-safe		Input power fails, relay does not act	

■ Specifications

Model	GMR-32B
Dimensions(H×W×D)(mm)	63×43×79
Power	200-500V(50/60Hz)

DIGITAL POWER METER

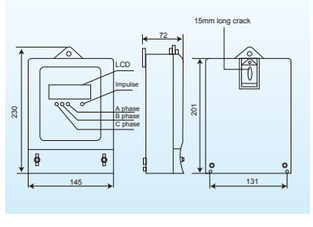
DTS634/DTS636

Calculate the power consumption.
Do not need adjustment after working for long periods.
One outdoor unit corresponds one digital power meter.

Low power consumption

The digital power meter works at low consumption. The working power is as follows:
Voltage circuit: less than 2W/10VA
Current circuit: less than 2.5VA

Indications and installation



The digital power meter is checked to be up to standard after it is manufactured, so it's able to work at once on the project site. The lights indications and the installation are as the left.

■ Specifications

Model	DTS634/DTS636
Dimensions(H×W×D)(mm)	230×145×72
Power	200V-500V(50Hz)

Selection software

Midea has developed a new program to design V4+i systems which meets the consultants' and distributors' requirements. The software provides a quick and convenient selection for users, which supports multi-languages. Greatly improving the selection efficiency and simplifying the procedure.

Project

It contains project information such as project name, nation, location, etc. Detailed meteorologic datas make the machines selected fit for the local environment well.

Load calculation

It provides two calculation methods. Directly decide the room load or input the detailed parameters such as room area, estimated cooling/heating load index, heating capacity and cooling capacity.

A/C selection

There are 13 types and 84 models of indoor units and 9 models of outdoor units for choosing.

Piping drawing

Piping drawing shows the detailed layout of an A/C system and parameters of piping and branch distributors.

Controller selection

To select the right central controller for indoor units and outdoor units; wireless or remote controller for indoor units.

Report output

Output a total report of selection project in word or excel format.